

CLAIMS

What is claimed is:

- 1 1. An apparatus comprising:
2 a collector to collect a message intended for an internal peer inside a firewall via a
3 gateway device at the firewall, the message being transmitted by an external peer outside
4 the firewall; and
5 a distributor coupled to the collector to distribute the message to the internal peer.
- 1 2. The apparatus of claim 1, further comprising:
2 a gateway interface to interface internally to the firewall to the gateway device.
- 1 3. The apparatus of claim 2, wherein the gateway interface establishes a
2 continuous connection to a relay server outside the firewall through tunneling.
- 1 4. The apparatus of claim 3, wherein the collector registers to the relay server
2 to act as an external contact point for the external peer.
- 1 5. The apparatus of claim 4, further comprising a registrar to register the
2 internal peer for external communication across the firewall, and wherein the collector
3 polls the relay server for an incoming message for a registered internal peer using a single
4 connection.
- 1 6. The apparatus of claim 1, wherein the gateway device is one of a firewall
2 and a network translation address (NAT) device.
- 1 7. The apparatus of claim 1, further comprising:
2 a registrar to register the internal peer for external communication across the
3 firewall.
- 1 8. The apparatus of claim 7, wherein the collector polls the gateway device for
2 an incoming message for a registered internal peer using a single connection.

1 9. The apparatus of claim 7, wherein the collector collects an internal message
2 from a registered internal peer to be transmitted to the external peer.

1 10. The apparatus of claim 9, wherein the distributor distributes the collected
2 internal message to the external peer via the gateway device.

1 11. A method comprising:
2 collecting a message intended for an internal peer inside a firewall via a gateway
3 device at the firewall, the message being transmitted by an external peer outside the
4 firewall; and
5 distributing the message to the internal peer.

1 12. The method of claim 11, further comprising:
2 interfacing internally to the firewall to the gateway device located at the firewall.

1 13. The method of claim 12, wherein the interfacing comprises: establishing a
2 continuous connection to a relay server outside the firewall through tunneling.

1 14. The method of claim 13, wherein the collecting comprises: registering to
2 the relay server to act as an external contact point for the external peer.

1 15. The method of claim 14, further comprising registering the internal peer for
2 external communication across the firewall, and polling the relay server for an incoming
3 message for a registered internal peer using a single connection.

1 16. The method of claim 11, wherein the interfacing to the gateway device
2 comprises: interfacing to one of a firewall and a network translation address (NAT) device.

1 17. The method of claim 11, further comprising:
2 registering the internal peer for external communication across the firewall.

1 18. The method of claim 17, wherein the collecting comprises: polling the
2 gateway device for an incoming message for a registered internal peer using a single
3 connection.

1 19. The method of claim 17, wherein the collecting comprises: collecting an
2 internal message from a registered internal peer to be transmitted to the external peer.

1 20. The method of claim 19, wherein the distributing comprises: distributing the
2 collected internal message to the external peer via the gateway device.

1 21. A system comprising:
2 a gateway device located at a firewall; and
3 an internal contact point located inside the firewall, the internal contact point
4 comprising:
5 a collector to collect a message intended for an internal peer inside a
6 firewall via a gateway device at the firewall, the message being transmitted by an
7 external peer outside the firewall; and
8 a distributor coupled to the collector to distribute the message to the internal
9 peer.

1 22. The system of claim 21, further comprising:
2 a gateway interface to interface internally to the firewall to the gateway device.

1 23. The system of claim 22, wherein the gateway interface establishes a
2 continuous connection to a relay server outside the firewall through tunneling.

1 24. The system of claim 23, wherein the collector registers to the relay server to
2 act as an external contact point for the external peer.

1 25. The system of claim 24, further comprising a registrar to register the
2 internal peer for external communication across the firewall, and wherein the collector

3 polls the relay server for an incoming message for a registered internal peer using a single
4 connection.

1 26. The system of claim 21, wherein the gateway device is one of a firewall and
2 a network translation address (NAT) device.

1 27. The system of claim 21, further comprising:
2 a registrar to register the internal peer for external communication across the
3 firewall.

1 28. The system of claim 27, wherein the collector polls the gateway device for
2 an incoming message for a registered internal peer using a single connection.

1 29. The system of claim 27, wherein the collector collects an internal message
2 from a registered internal peer to be transmitted to the external peer.

1 30. The system of claim 29, wherein the distributor distributes the collected
2 internal message to the external peer via the gateway device.

1 31. A gateway device comprising:
2 an internal contact point located inside the firewall, the internal contact point
3 comprising:
4 a collector to collect a message intended for an internal peer inside a
5 firewall via a gateway device at the firewall, the message being transmitted by an
6 external peer outside the firewall; and
7 a distributor coupled to the collector to distribute the message to the internal
8 peer.

1 32. The system of claim 31, further comprising:
2 a gateway interface to interface internally to the firewall to the gateway device.

1 33. The system of claim 31, wherein the gateway device is one of a firewall and
2 a network translation address (NAT) device.

1 34. The system of claim 31, further comprising:
2 a registrar to register the internal peer for external communication across the
3 firewall.

1 35. The system of claim 31, further comprising: a relay server to interface to a
2 number of external peers outside the firewall.